

## REVIEW COMMENTS

Larson Limestone Company (LLC)  
Pelican Point Quarry

M/049/011  
(April 6, 1998)

### **R647-4-107 - Operation Practices**

#### **107.4 Deleterious material safety stored or removed**

The Division will wait for the updated information regarding the waste oil burning facility as a result of your February 3, 1998 meeting with the Division of Air Quality. (AAG)

*This previous Division comment was not specifically addressed in the January 30, 1998 response from LLC.*

### **R647-4-109 - Impact Assessment**

#### **109.4 Slope stability, erosion control, air quality, safety**

Page 18 of the Impact Assessment section of the submission describes the impacts to air quality. The approval order DAQE-030-95 is referenced for the grinding plant; however, the equipment and operation at the Crushing Plant are not included in this approval order. Is the current Crushing Plant considered a grandfathered source which is not subject to DAQ regulation? This page mentions a notice of intent submitted in accordance with the Utah Air Conservation Regulations. What is the approval status of this notice of intent? When available, please provide the Division with a copy of the approval letter from the DAQ. (AAG).

*These two previous Division comments were not specifically addressed in the January 30, 1998 response from LLC.*

### **R647-4-110 - Reclamation Plan**

#### **110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed**

Pre-act mining created several highwalls at this site and LLC's proposed 10-year plan will continue to increase the height and extent of these highwalls. The Division granted a variance for the small mining operations notice of intention to allow the existing highwalls to remain at final reclamation rather than requiring the highwalls to be regraded to a 45 degree angle or backfilled. This variance is not automatically extended to areas of new highwall creation or areas where the existing highwall is significantly increased in height. Figure 9 of the submission describes the proposed highwalls as having a 50 foot wide bench every 195 vertical feet; however, no description of the entire highwall was included. Please describe the vertical height, number of benches, and angle of the face between benches for the final 10-year highwall configuration. Please describe the proposed reclamation for the angle of repose slopes near the processing area. (AAG)

The submission did not include any reclamation or closure of the two mine portals. Please describe the reclamation of these portals or describe their proposed post-mining use under the appropriate rule heading. (AAG)

**R647-4-111 - Reclamation Practices**  
**111.12 topsoil redistribution.**

*The following Division comment was not addressed in the January 30, 1998 response from LLC.*

Larson Limestone is planning to use in-situ soil materials (fines) for final reclamation since there was no topsoil salvaged when the quarry was developed in the 1920's. There will be no new areas of disturbance for the 10-year mine plan. To adequately predict the reclamation potential and the adequacy of proposed soil amendments, please provide an analysis of this material which includes the following parameters:

- |                           |                                   |
|---------------------------|-----------------------------------|
| 1. Texture                | 6. CEC (cation exchange capacity) |
| 2. pH                     | 7. Total nitrogen                 |
| 3. EC (conductivity)      | 8. Nitrate nitrogen               |
| 4. SAR                    | 9. Phosphorus (as $P_2O_5$ )      |
| 5. Percent Organic Matter | 10. Potassium (as $K_2O$ )        |

**R647-4-112 - Variance**

The Larson Limestone response received January 30, 1998 requests the following variances:

- to allow existing highwalls to remain unreclaimed;
- to allow highwalls which are heightened to remain unreclaimed without benching;
- from topsoil salvage and replacement requirements for the entire area previously impacted by mining;
- from topsoil salvage and replacement requirements for the entire permit area due to the existing lack of soils over the bedrock;
- to allow the storage & repair building, processing building, high grade storage shed and service road to remain unreclaimed for possible post mining land use.

*Reference to the specific Minerals Rule for each variance was not included. See review comments below:*

***R647-4-111.7 Highwalls stabilized at 45 degrees or less***

For clarification purposes, the Division interprets LLC's highwall variance request to be a request for a variance from (1) Minerals Rule R647-4-111.7 to allow existing highwalls, new highwalls and highwalls which are increased in height to remain at a configuration steeper than 45 degrees at final reclamation and from (2) Minerals Rule R647-4-111.13 to allow these highwall areas to be excluded from the revegetation success standard. Please confirm this interpretation. (AAG)

Additional information is required regarding these highwall variance requests. Please provide an estimate of the disturbed acreage for the highwall area to be included in this variance request. Please provide a copy of MSHA inspection documentation or correspondence stating the proposed highwall configuration without benching is acceptable. Geologic mapping of the

highwall face to illustrate the instability of benching through the natural fracture line would also be supportive of this variance request. Does Figure 9 represent a typical highwall bench configuration which is acceptable to MSHA? Does Figure 9 represent the typical highwall configuration during operations and/or after final reclamation? Describe the specific measures in place at the time of final reclamation to protect the public from highwall hazards or explain why these measures are unnecessary. (AAG)

*R647-4-111.8 All roads & pads reclaimed*

Please provide a map of the proposed post-reclamation configuration for the site which shows the service road and structures which are proposed to remain unreclaimed. Please provide an acreage estimate for this disturbed area which is proposed to remain unreclaimed. (AAG)

*R647-4-111.11 Structures & equipment buried or removed*

The storage & repair building, processing building and high grade storage shed are proposed to remain unreclaimed. This is interpreted as a request for a variance from Minerals Rule R647-4-111.11.

Potential post mining land uses of these facilities are described as: mining, offices, equipment storage, livestock or poultry operations, fruit or field crop production, range and forestry or other uses allowed under the Utah County Zoning designation of M&G-1. Leaving these facilities presents a conflict with the post mining land use of wildlife habitat and limited grazing. A primary objective of the Mined Land Reclamation Act (the Act) is to insure that all mining-related disturbances are properly reclaimed *after* mining operations are terminated. Granting a variance to leave mining facilities/structures for these *possible* future activities may not be acceptable to the Division without additional supportive justification. Please provide the following information:

- (a) reasonable assurance that the future use(s) of the facilities will actually occur,
- (b) an explanation of how (and by whom) the facilities will be maintained and secured to insure public safety during periods of inactivity or suspension, and
- (c) an explanation of who will assume the ultimate reclamation responsibility and/or long-term liability of these features/facilities after the current mining operations have ended.

Until these variances requests are formally accepted and approved by the Division, the reclamation surety estimate will need to be revised to include costs for the demolition, removal and reclamation of these facilities. At the end of the mining project these facilities must be reclaimed, unless the responsibility for their continued use and maintenance is transferred to another entity for continued mining or an alternate post mine use.

*R647-4-111.12 Topsoil redistribution*

No topsoil was salvaged during pre-act mining and no topsoil is salvageable in areas of proposed future mining (ten-year plan area). The reclamation plan states that amendments will be added to in-situ materials to modify them to support vegetation. A variance from the topsoil salvage and

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topsoil replacement is approved for the entire ten-year mine plan area. (LK)

**R647-4-113 - Surety**

The surety estimate assumes concrete foundations and pad material can be sold as product after operations terminate and therefore costs for disposal or removal of these materials was not included in the estimate. Utilizing the salvage value of materials to offset their reclamation costs is not acceptable to the Division in calculating reclamation estimates. Please revise the estimate to include costs for onsite burial of broken concrete debris or for offsite disposal, and for regrading the pad materials. (AAG)

The reclamation estimate included in this submission describes mulch application for 13.0 out of 26.5 acres. As a clarification, according to the proposed reclamation plan the term mulch actually represents composted manure. (AAG)

The current projected escalation factor used by the Division is 2.24%. Please revise the escalation section of the reclamation estimate to use this new factor rather than the old factor of 2.52%. (AAG)

This response submission proposes a reclamation surety amount of \$95,516 for reclamation of approximately 26.5 acres out of approximately 33.10 acres of disturbance. The information requested in this review and revision of the surety estimate will be needed before the Division can determine if the proposed amount of surety is acceptable. (AAG)

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